



SUGGESTIONS

FOR

PREVENTING THE SPREAD OF SCARLET-FEVER.

A Circular from the State Board of Health of Massachusetts.

SCARLET-FEVER, scarlatina, scarlet-rash, canker-rash, and rash-fever are names of a contagious and infectious disease of varying degrees of severity; but in which all the forms are capable of conveying the most severe type. A person may become ill with fatal scarlet-fever from association with another who had so mild an attack of the disease as not to keep him in the house, much less in bed.

The hypothesis of a "germ" in scarlet-fever, analogous to the spores of minute vegetable growths, which is of organic nature and capable of indefinite multiplication outside of the body, is maintained by some scientific observers, but is held by other authorities to be at variance with many observed facts.

It is generally agreed among sanitarians, that scarlet-fever is conveyed from one person to another by means of the epithelium or thin superficial covering which extends over the whole body, under the name of epidermis, cuticle, or scarf-skin, and which also lines the inner passages of the body. The exhalations from the outer and inner surfaces of the various parts of the body, and from the excretions also, are capable of transmitting the disease. Upon whatever the contagious matter depends for its dangerous character, it is capable of retaining its power to carry the disease for a long time—certainly many months, and possibly for a year or more—unless destroyed.

The means of transporting the contagium of scarlet-fever may be furnished by any thing that has come in contact with an infected person or object,—air, food, clothing, sheets, blankets, whiskers, hair, furniture, toys, library-books, wall-paper, curtains, cats, dogs, &c. Funerals have occasionally spread the disease, the exhalations from the dead body being also dangerous.

The period from exposure which results in scarlet fever, to the time when the symptoms manifest themselves, varies from several

hours to three, and possibly four, weeks. The average time is variously given from six to eight or ten days.

The time at which one who has been ill with scarlet-fever may safely mingle with other people is not always easy to determine; but it is, for convenience, usually placed by sanitarians at four weeks from the commencement of the illness, as that covers the vast majority of cases, and it is best to have some arbitrary rule. A physician's certificate, however, should be always required.

It would be well to designate every house where scarlet-fever exists, by some mark not too conspicuous, and yet sufficient to give the proper information.

The first principle of treatment is in isolation, which can be nowhere so well observed as in a hospital, provided the patient is old enough to go there. Otherwise he should be placed in a room as much separated from the rest of the house as possible, and communicate with no more members of the household than is absolutely necessary. If an outward draught of air from the sick-room to the entry occurs, a curtain may be formed by a sheet which is soaked in some disinfectant; those which have not a disagreeable odor, and do not stain clothing, being preferred.

The sick-room should be well warmed and ventilated (by an open fireplace with a fire or a lamp in it, if possible). It should be open to the sun, as free as possible from noise, dust, &c., and not "aired" by cold draughts, which are often more dangerous than a foul atmosphere.

All carpets, upholstered furniture, window-hangings, and, indeed, unnecessary objects of every kind, especially woollen, should be removed from the room. Bits of carpet may be used, and burned after the need for them has passed.

The discharges from the throat, nose, and mouth of the patient may be put in a vessel containing a strong solution of some "disinfectant," which shall be frequently washed with hot water: they should not be received upon any thing which is to be kept. Pieces of soft cloth, which should be at once burned, may be used in place of pocket-handkerchiefs. The breath should be kept as pure as may be, by cleansing gargles and washes for the mouth (chlorinated soda, permanganate of potash, &c.). The discharges from the kidneys and bowels should be disinfected with boiling water, to which some deodorizer (nitrate of lead, chloride of zinc, sulphate of iron, carbolic acid, chloride of lime, &c.) may be added. Carbolic acid may be added as a "disinfectant" to the slops, and to the water in which the patient has washed, before throwing it out. The skin is usually more comfortable in feeling if cosmoline, &c.,

or sweet-oil, with a couple of grains of camphor to the ounce, is used for anointing it; the scales of the epidermis are also thereby prevented, to a considerable degree, from escaping freely into the air. The bed-clothes, towels, &c., when disused, should be removed with proper care, and be boiled for a couple of hours. The food left uneaten should never be carried where it may infect other persons.

While the sick-room is occupied, it is doubtful whether any *disinfectant* can be used of sufficient strength to destroy the contagium. Many substances, however, do destroy organic matter by oxidation, and in that way at least contribute to cleanliness if nothing more. For that purpose it is desirable to use nitrate of lead, chlorinated soda, chloride of zinc, permanganate of potash, &c., because they do not stink of themselves. It has been thought that the ancient custom of burning aromatic balsams, &c., contributed powerfully to disinfection.

Attendants on the sick should be as few as possible, and should not communicate with other persons any more than can be helped. They should wear only such clothing as may be readily washed. Clothes used in the sick-room should be boiled before being worn elsewhere. Gargling or washing the mouth occasionally with a cleansing fluid is a useful measure for those who must be exposed to contagion; and in washing the hands, a little Condy's fluid (permanganate of potash) may be placed in the basin.

After recovery, the patient should not mingle with other persons, use lounges, carriages, public rooms, &c., liable to be used by others, until all roughness of the skin has disappeared, and until he has taken warm baths for several days.

After the sick-room is no longer needed as such, all the clothing and other matters used in it, that can be washed, should be soaked in boiling water; others should be placed in a hot-air chamber, and kept at a temperature of 212° F. for several hours. Any articles of trifling value may be destroyed by fire. The wall-paper should be soaked with carbolic acid, removed and burned. The ceiling should be washed with soap and hot water, or scraped. The room should then be closed as tight as possible, and as much sulphur burned in it as the air will allow (a pound is an abundant amount for an ordinary room); it should be kept closed from six to eight hours, and then opened for several days to the air and sunshine. The floor and wood-work should then be thoroughly washed with soap and hot water. Scraping and repainting would not be considered an excess of caution in time of epidemics.

Should the sick person die, the body ought not to be removed

from the sick-room until it has been sealed in the coffin, with carbolate of iron, carbolized earth, or some similar agent. It is advisable that the funeral should be as private as possible, and not attended by children.

Any thing which deteriorates health tends to render the system liable to any disease; and in that sense filth may be considered to promote scarlet-fever, or to increase its mortality. Perfect cleanliness should therefore be enjoined. Sewer-gas, of course, is a kind of filth which may bring to one person's chamber, if it has access thereto, the contagium brought from another chamber and not disinfected. Overcrowding is one of the most active ways of propagating contagious disease. Finally, fresh air is one of the best disinfectants.

In our State, there is a local board of health in every town, although in too many cases consisting of a body of men who are sufficiently occupied with other duties, and who in their character of selectmen act *ex officio* as guardians of health. To each one of these boards the law gives full authority to take every step that is needed in the preventive measures to be adopted in case of scarlet-fever. The sections with regard to isolation are from Chapter 26 of the General Statutes, and as follows:—

SECTION 47. When a householder knows that a person within his family is taken sick of . . . any . . . disease dangerous to the public health, he shall immediately give notice thereof to the . . . board of health of the town in which he dwells. If he refuses or neglects to give such notice, he shall forfeit a sum not exceeding one hundred dollars.

SECTION 48. When a physician knows that any person whom he is called to visit is infected with . . . any disease dangerous to the public health, he shall immediately give notice thereof to the . . . board of health of the town; and if he refuses or neglects to give such notice he shall forfeit for each offence a sum not less than fifty nor more than one hundred dollars.

The Board of Health of Boston at present require small-pox, scarlet-fever, diphtheria, and typhus-fever to be reported to them. Sufficient power is given to school committees also, to restrict the attendance at school of children from infected houses.

These rules for the prevention of scarlet-fever should be carried out *only* under the direction of physicians or boards of health.

We are fully aware that many individual cases of scarlet-fever occur without any spread of the disease; but the rule is to the contrary, and we have no means of knowing that we are safe, without taking precautions which a different course might occasionally have proved to be unnecessary.